

# FFY 2017-2021 Transportation Improvement Program (TIP)

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The Five-year Program of Federally-funded  
Transportation Projects in Dutchess County



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## ***FFY 2017-2021 Transportation Improvement Program (TIP)***

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## Background

The [Poughkeepsie-Dutchess County Transportation Council \(PDCTC\)](#) serves as the designated Metropolitan Planning Organization (MPO) for Dutchess County. In accordance with the provisions set forth in the current federal transportation law – the Fixing America’s Surface Transportation (FAST) Act – and 23 U.S.C. 134 and 49 U.S.C. 5303, the PDCTC (hereinafter referred to as the “Transportation Council”) is tasked with carrying out a cooperative and comprehensive multimodal transportation planning process in Dutchess County.

Federal transportation law requires that a U.S. Census-designated Urbanized Area be represented by an MPO, which is responsible for ensuring that federal highway and transit dollars are committed through a locally driven, comprehensive planning process. The Transportation Council provides a forum for State and local officials to coordinate transportation issues and reach consensus on transportation plans and funding for transportation projects. The Transportation Council strives to ensure that federally funded projects are the products of a credible planning program, meeting the goals and priorities of the metropolitan area.

The Transportation Council develops three core products as part of the metropolitan transportation planning process:

- **Metropolitan Transportation Plan (MTP)** – the long-range multimodal transportation plan for Dutchess County. The MTP is updated every five years and addresses at least a 20-year planning horizon. The current MTP, [Moving](#)

[Dutchess 2](#), was adopted with an effective date of April 1, 2016, and uses a planning horizon year of 2040. The MTP recommends policies and projects to build and maintain a transportation system that promotes the safe and efficient movement of people and goods in a sustainable manner.

- **Transportation Improvement Program (TIP)** – the prioritized listing of federally funded transportation projects in the County, covering a period of no less than four years. The TIP implements the recommendations from the MTP and provides information on funding sources, schedules, and responsible agencies for projects. The current 2014-2018 TIP was adopted by the Transportation Council in June 2013.
- **Unified Planning Work Program (UPWP)** – the statement of work identifying the federally funded planning activities to be carried out by the Transportation Council. The UPWP includes descriptions of planning tasks and resulting products, a schedule for completing tasks, the cost of the work, sources of funds, and which organization will perform each task. The Transportation Council updates the UPWP annually.

## Organization

The Transportation Council, acting as the local MPO decision-making body, is comprised of 16 voting members. Membership on the Transportation Council is based on a municipality’s urbanized area classification, with the urbanized cities and towns serving as permanent voting members and

the remaining towns and villages serving on a rotating basis or as nominated by the Dutchess County Supervisors and Mayors Association. In addition, Dutchess County, the New York State Department of Transportation (NYSDOT), and the Metropolitan Transportation Authority (MTA) serve as voting members on the Transportation Council, while the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), New York State Bridge Authority (NYSBA), and Dutchess County Planning, Public Works, and Public Transit serve as non-voting advisory members. Figure 1 shows the Transportation Council's voting membership.

The Transportation Council is assisted by a Planning Committee that reviews plans and programs prior to Council action. The Planning Committee is responsible for providing agency, municipal, and public input during the development of the MTP, TIP, UPWP, and other Transportation Council products. Membership on the Planning Committee is open to all municipalities in Dutchess County.

Day-to-day Transportation Council activities are performed by staff at the Dutchess County Department of Planning and Development, which assumes primary responsibility for the development of the UPWP, maintenance of the TIP, coordinating local plans and projects, and producing the MTP. NYSDOT-Region 8 assists with TIP maintenance, including processing changes through the eSTIP program. The Dutchess County staff section includes a Transportation Program Administrator, Senior Planner, and Junior Planner.

#### Mid-Hudson Valley Transportation Management Area

In addition to carrying out the metropolitan transportation planning process within Dutchess County, the Transportation Council also addresses regional transportation needs through its participation in the Mid-Hudson Valley Transportation Management Area (TMA). The TMA is a federal designation used to classify Urbanized Areas with populations of 200,000 or more. The Poughkeepsie-Newburgh NY-NJ Urbanized Area, with a population of over 423,000, includes parts of Dutchess, Orange, and Ulster Counties in New York, and Passaic County in New Jersey (see Figure 2). Figure 3 shows the portion of the Poughkeepsie-Newburgh NY-NJ Urbanized Area in Dutchess County and the MPO Adjusted Urbanized Area Boundary.

The Orange County Transportation Council (OCTC) and Ulster County Transportation Council (UCTC) oversee transportation planning for their respective counties, while the New Jersey Public Transportation Authority (NJPTA) is responsible for transportation planning for northern New Jersey including Passaic County. The TMA classification requires that the MPOs jointly disburse FTA Section 5307 (Urbanized Area) and Section 5339 (Bus and Bus Facilities) transit funding and receive an in-person federal certification review every four years. The most recent federal certification occurred in 2014. TMA's are also encouraged to develop a Congestion Management Plan (CMP) to reduce traffic congestion.

Figure 1. Transportation Council Membership

<b><u>Permanent Voting Members</u></b> Dutchess County Executive (Permanent Chairperson) NYSDOT Commissioner Metropolitan Transportation Authority Chairman and CEO City of Beacon Mayor City of Poughkeepsie Mayor Town of Beekman Supervisor Town of East Fishkill Supervisor Town of Fishkill Supervisor Town of Hyde Park Supervisor Town of LaGrange Supervisor Town of Poughkeepsie Supervisor Town of Wappinger Supervisor	<b><u>Two Members from the Non-Urban Towns and Villages<sup>1</sup></u></b> Town of Amenia Supervisor Town of Clinton Supervisor Town of Dover Supervisor Town of Milan Supervisor Town of North East Supervisor Town of Pine Plains Supervisor Town of Red Hook Supervisor Town of Rhinebeck Supervisor Town of Stanford Supervisor Town of Washington Supervisor Village of Millbrook Mayor Village of Millerton Mayor Village of Red Hook Mayor Village of Rhinebeck Mayor Village of Tivoli Mayor
<b><u>One Member from the Partially Urbanized Towns (rotating)</u></b> Town of Pawling Supervisor Town of Pleasant Valley Supervisor Town of Union Vale Supervisor	<b><u>Non-Voting Members</u></b> Federal Highway Administration Federal Transit Administration NYSDOT Regional Director (Permanent Secretary) NYS Bridge Authority Director Dutchess County Department of Planning & Development Dutchess County Department of Public Works Dutchess County Division of Public Transit
<b><u>One Member from the Urbanized Villages (rotating)</u></b> Village of Fishkill Mayor Village of Pawling Mayor Village of Wappingers Falls Mayor	

<sup>1</sup> As nominated by the Dutchess County Supervisors and Mayors Association.



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Figure 2. Mid-Hudson Valley Transportation Management Area (TMA)

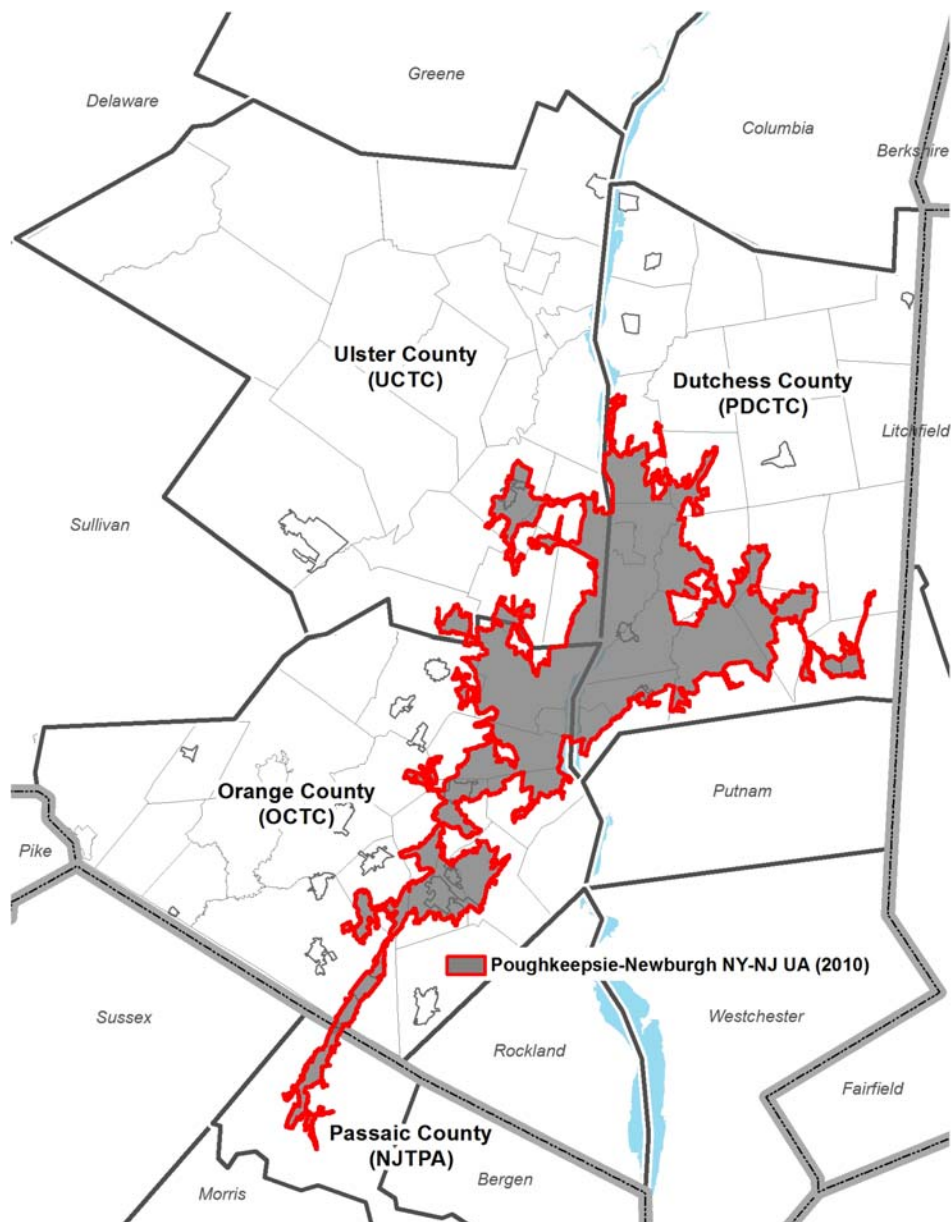
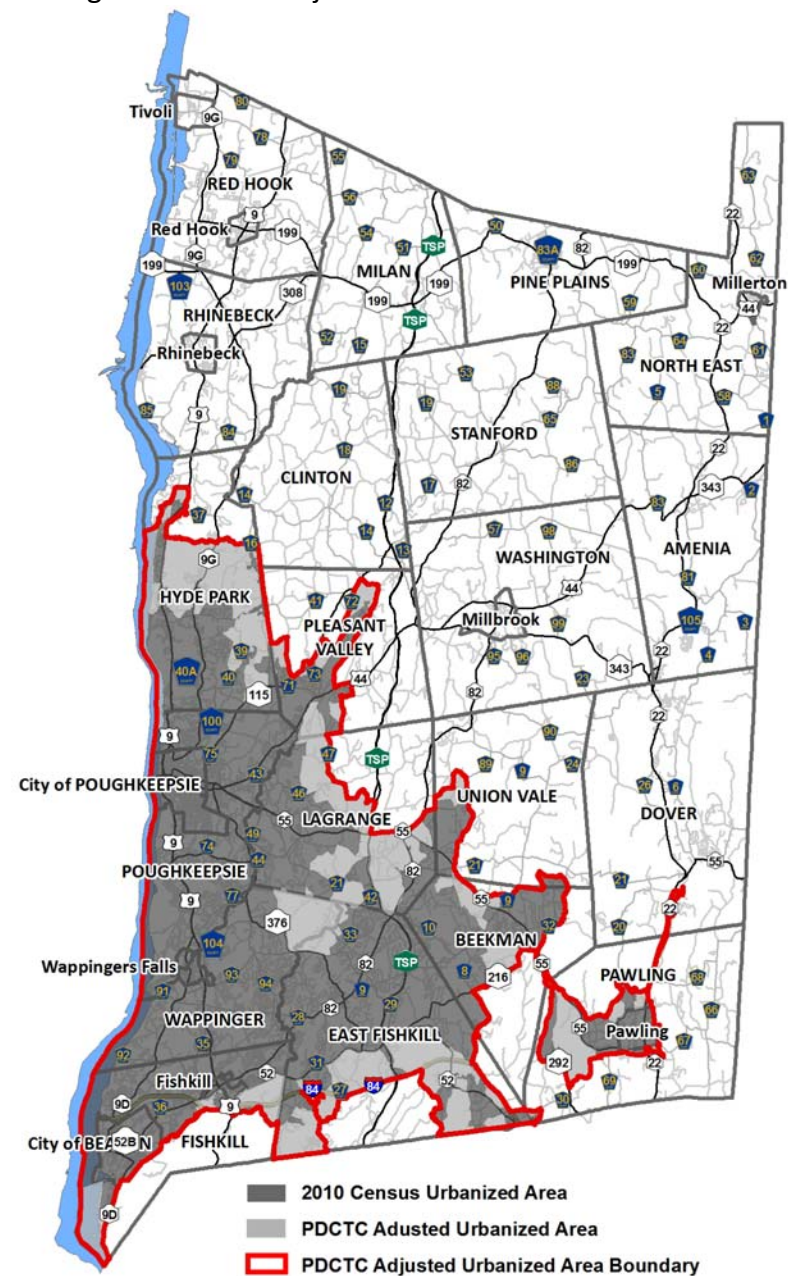


Figure 3. PDCTC Adjusted Urbanized Area



## **TIP Development**

### Overview

The TIP serves as the prioritized listing of federally funded transportation projects in Dutchess County and is developed and adopted by the Transportation Council as part of the metropolitan transportation planning process. The TIP identifies capital and non-capital surface transportation projects or project phases that are proposed for funding under 23 U.S.C. and 49 U.S.C. Chapter 53. At a minimum, the TIP must be updated at least once every four years and approved by the MPO and Governor. In New York, the TIP update cycle coincides with the update cycle for the Statewide Transportation Improvement Program (STIP), which is typically done every two to three years.

The FAST Act requires that MPOs develop the TIP in cooperation with the State and all affected public transportation operators. The TIP must contain projects that are consistent with the current Metropolitan Transportation Plan (MTP) (e.g. *Moving Dutchess 2*) and reflect the investment priorities established in the MTP. The TIP must also include, to the maximum extent practicable, a description of the anticipated effect of the TIP on achieving the performance targets established in the MTP, linking investment priorities to those performance targets.

In developing the TIP, the MPO is required to provide an opportunity for participation by interested parties. For the Transportation Council, this occurs at monthly Planning

Committee meetings and through formal public comment periods. An MPO must also develop estimates of funds that are reasonably expected to be available to support program implementation. The TIP must include a financial plan that demonstrates how the TIP can be implemented using estimates of public and private resources that are reasonably expected to be available to carry out the program.

For each project or project phase, the TIP must include sufficient descriptive material to identify the project (e.g. type of work, length, location, termini). The TIP shall also show the estimated total project cost and amount of federal funds proposed to be obligated during each program year for the project or phase. Listings also identify the agency responsible for carrying out the project.

Though the TIP focuses on the programming of federal funds, it also includes State-funded transportation projects to provide a more complete picture of transportation improvements in the area.

### Relationship to the Metropolitan Transportation Plan

The TIP is an essential product of the overall transportation planning process, since it is through the TIP that the Transportation Council commits to the implementation of transportation projects. Once programmed on the TIP, a sponsor may proceed with work on a project; for a typical highway project, this would include activities such as preliminary and detailed design, right-of-way acquisition, and construction. Projects must be consistent with the ten goals



identified in *Moving Dutchess 2*:

1. Maintain highways and bridges in a state of good repair.
2. Maintain the transit system in a state of good of repair and increase ridership to reduce traffic and promote sustainable development.
3. Improve safety to reduce transportation-related fatalities, injuries, and property damage.
4. Reduce traffic congestion to improve our quality of life and promote economic development.
5. Increase bicycling and walking to reduce traffic, improve operations, and promote sustainable development.
6. Increase carpools/vanpools to reduce traffic, improve operations, and promote sustainable development.
7. Reduce transportation-related impacts to the environment and promote sustainable development and smart growth.
8. Increase public participation in the transportation planning process.
9. Improve the delivery of federally-funded transportation projects.
10. Improve transportation security.

The 2017-2021 TIP covers the period from October 1, 2016 through September 30, 2021 and coincides with the Federal Fiscal Year (FFY) calendar. Upon Transportation Council approval, the 2017-2021 TIP will be incorporated into the STIP, which is then reviewed and approved by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). Federal approval is required by October 1, 2016: the start of FFY 2017.

Fixing America's Surface Transportation Act (FAST) Act

The Transportation Council operates under the tenets of the FAST Act, the federal law that provides funds for transportation projects and planning efforts and establishes federal transportation priorities. The FAST Act requires that the metropolitan transportation planning process, which results in the TIP, address ten planning factors:

1. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
2. Promote efficient system management and operation.
3. Emphasize the preservation of the existing transportation system.
4. Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation.
5. Enhance travel and tourism.
6. Increase the accessibility and mobility of people and freight.
7. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns.
8. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

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9. Increase the safety of the transportation system for motorized and non-motorized users.
10. Increase the security of the transportation system for motorized and non-motorized users.

*Moving Dutchess 2* recommends specific projects to preserve and improve the transportation system. The majority of these are maintenance-related, striving to maintain public safety and preserve the system as best as possible. Project recommendations in *Moving Dutchess 2* are categorized into the following general project types:

1. Bridge Maintenance: replacement or rehabilitation of bridges that are in or are expected to be in poor condition.
2. Highway Maintenance: reconstruction or rehabilitation of roadway segments that are in or are expected to be in poor condition.
3. Highway Operations: intersection, turning lane, and traffic signal projects to improve operations and reduce congestion.
4. Safety: projects and studies to improve safety.
5. Pedestrian/Bicycle: construction or rehabilitation of sidewalks, crosswalks, trails and bicycle facilities to improve safety and accessibility.
6. Travel Demand Management: rideshare/vanpool services to reduce congestion.
7. Transit: bus replacements, operating assistance, and preventive maintenance for transit providers, as well as facility upgrades for bus and commuter rail.
8. Planning: topics or locations that require additional study.

### TIP Project Selection

Using the previous 2014-2018 TIP as a foundation, the Transportation Council developed the 2017-2021 TIP with the cooperation of State and local officials, regional and local transit operators, and other affected transportation and regional planning agencies. These organizations reviewed their programmed projects and re-prioritized them based on changes in funding availability and eligibility, updated project schedules and scopes, and local infrastructure goals.

The Transportation Council began work on the 2017-2021 TIP in late 2015, when federal and State funding targets were first provided by NYSDOT. The TIP development process covered four major activities:

1. Reviewing existing projects so that costs, scopes, and schedules reflected the most up-to-date information available.
2. Identifying new transit projects from local and regional transit operators. (Due to the lack of available highway funding, the Transportation Council did not solicit for new highway projects).
3. Prioritizing projects based on sponsor schedules and funding capabilities.
4. Reconciling requested cost and schedule changes with available funding by fiscal year and fund source.

During the review of existing projects, project sponsors assessed their ability to progress projects in light of new project priorities, scope changes, and available funding

resources. Their assessment resulted in the removal of three NYSDOT projects that were programmed on the 2014-2018 TIP, but withdrawn from the 2017-2021 TIP in order to meet fiscal constraint:

1. PIN 801065: Route 9 Pedestrian Bridge over the Wappinger Creek in the Town of Poughkeepsie and Village of Wappingers Falls (\$4.36 million).
2. PIN 801445: Route 82/CR 31 (Palen Rd.) Intersection Realignment in the Town of East Fishkill (\$2.89 million).
3. PIN 839139: Route 55/Gardner Hollow Rd. resurfacing in the Town of Beekman (\$0.451 million).

## **Transportation Funding**

The FAST Act authorizes a variety of funding programs that support highway, transit, and bicycle-pedestrian projects and requires that the TIP be financially constrained by using estimates of current and reasonably available future revenues to program projects. The 2017-2021 TIP includes only projects for which construction or operating funds are expected to be available. The Transportation Council estimated funds from four sources:

1. Federal-aid highway funding (Title 23) administered through the Federal Highway Administration (FHWA)
2. Federal transit assistance (Title 49) administered through the Federal Transit Administration (FTA)
3. State Dedicated Funds (SDF)
4. Local match funds

To reflect Year of Expenditure (YOE) dollars (the future estimated value of the dollar after accounting for inflation), NYSDOT applied inflation factors to the costs of projects and phases beyond FFY 2016. The inflation factors allow NYSDOT to more accurately demonstrate financial constraint in the STIP by accounting for rising labor, equipment, and material costs. Annual inflation is estimated at two percent.

## **Highway Programs**

The FAST Act continues the consolidation of highway funding programs into a smaller set of core programs, many of which focus on maintaining and improving transportation infrastructure needs of federal interest.

### National Highway Performance Program (NHPP)

The NHPP supports maintenance and improvement activities for the National Highway System (NHS), which includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility. The NHS is developed by the U.S. Department of Transportation (DOT) in cooperation with states, local officials, and MPOs. The NHPP supports the construction of new facilities on the NHS and other activities that help agencies attain performance targets established in a state's NHS asset management plan. The federal share for the NHPP is generally 80 percent of the total project cost.

In Dutchess County, the current NHS covers approximately 309 centerline miles of State highways, primarily I-84, Routes

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9, 9D, 22, 44, and 55, and the Taconic State Parkway. NHS roads represent 12 percent of total centerline mileage in Dutchess County. Figure 4 shows the NHS in Dutchess County.

NHPP projects must be on an eligible facility and support the achievement of national performance goals for improving infrastructure condition, safety, mobility, and freight movement on the NHS, and also be consistent with State and MPO plans such as *Moving Dutchess 2*. NHPP eligible activities can include the following types of projects:

- Construction, rehabilitation, preservation, and operational improvements on NHS facilities, including bridges and tunnels.
- Bicycle transportation and pedestrian walkways associated with an NHS facility.
- Highway safety improvements on NHS facilities.
- Capital and operating costs for traffic and traveler information monitoring and management for NHS facilities.
- Reconstruction and rehabilitation of bridges on a non-NHS Federal-aid highway, as long as Interstate System and NHS bridge condition requirements are satisfied.

### **Surface Transportation Block Grant (STBG) Program**

The Surface Transportation Block Grant (STBG) Program provides flexible funding that may be used by states and localities for projects to preserve and improve conditions and operations on Federal-aid highways, all bridges and tunnels, and pedestrian and bicycle facilities. The FAST Act directs FHWA to apportion STBG funding as a lump sum for each

State and then divides that total among apportioned programs. Each State's STBG apportionment is calculated based on a percentage specified in law. STBG eligible activities can include the following:

- Construction, rehabilitation, preservation, and operational improvements for Federal-aid highways.
- Construction, rehabilitation, preservation, and operational improvements for bridges and tunnels on any public road. The FAST Act requires that states obligate a portion of STBG funds for bridges not on federal-aid highways (known as off-system bridges).
- Inspection and evaluation of bridges, tunnels, and other highway assets.
- Carpool projects, [ED1]corridor parking facilities and programs, including electric and natural gas vehicle charging infrastructure, bicycle transportation and pedestrian walkways, and ADA sidewalk modification.
- Highway and transit safety infrastructure improvements and programs.
- Capital and operating costs for traffic monitoring, management and control facilities and programs.

The federal share for most STP activities is 80 percent of the total project cost, though this can increase to 90 percent for projects on the Interstate System and 100 percent for certain safety improvements. Figure 5 shows Federal-aid roads in Dutchess County.



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Figure 4. National Highway System (NHS) in Dutchess County

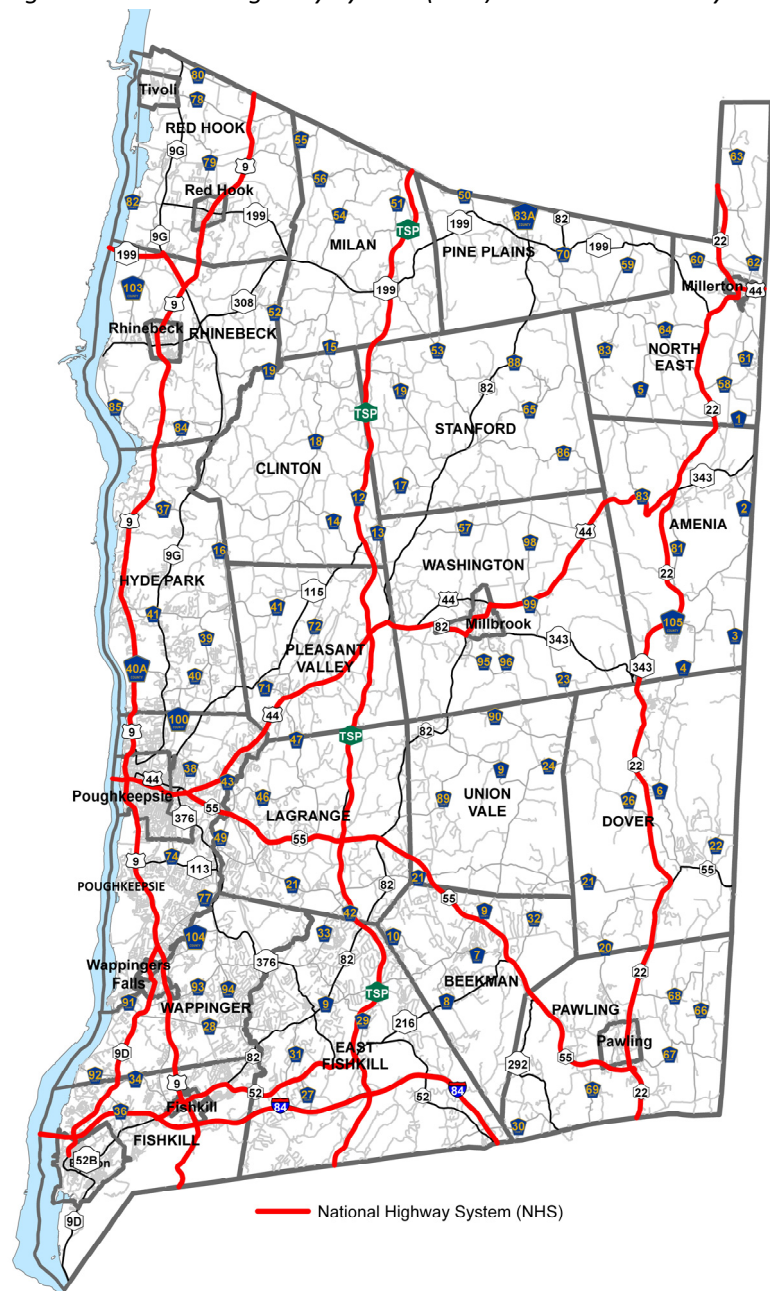
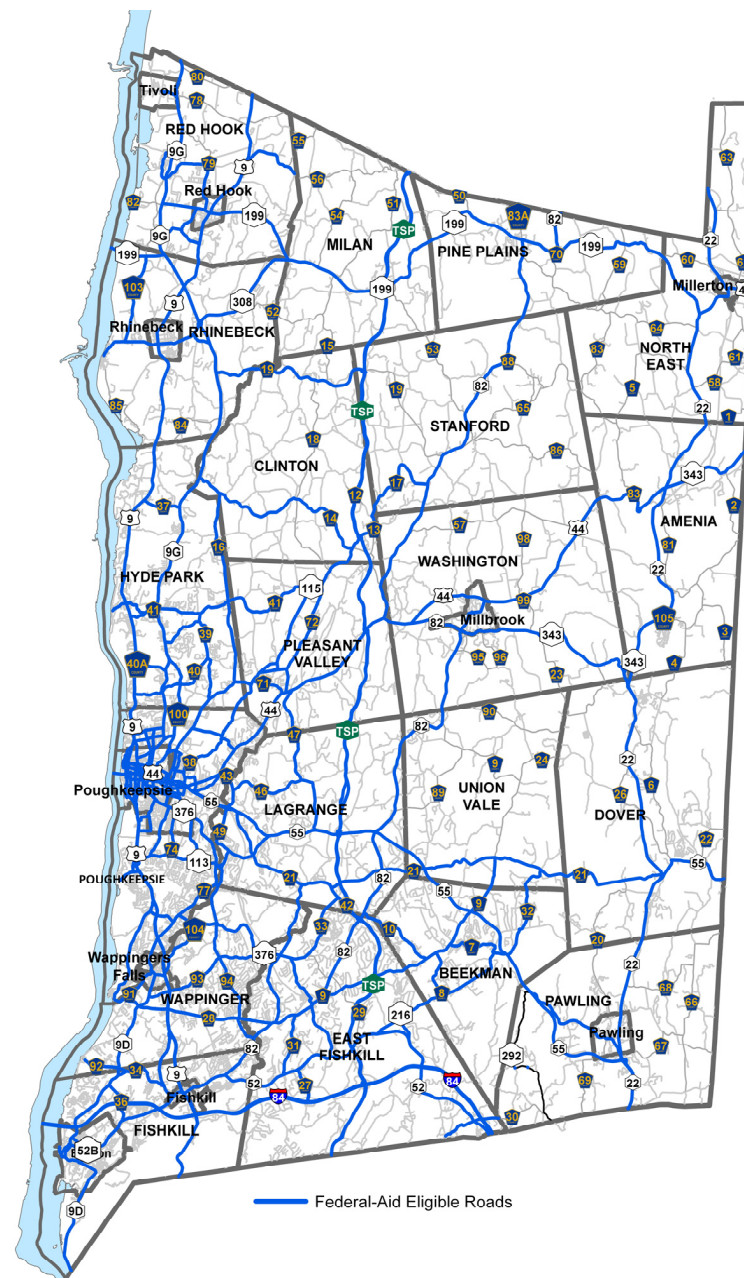


Figure 5. Federal-aid Eligible Roads in Dutchess County





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### **Congestion Mitigation and Air Quality (CMAQ) Improvement Program**

The CMAQ program provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (known as non-attainment areas). Eligible projects include those that improve traffic flow, such as signal improvements, intersection improvements, and systems management and operations. On July 20, 2013, the USEPA designated Dutchess County to be in attainment for the 2008 8-hour ozone standard. As per State guidance, this prevents the use of CMAQ funds in Dutchess County.

### **Highway Safety Improvement Program (HSIP)**

The HSIP seeks to significantly reduce traffic fatalities and serious injuries on public roads, including non-State-owned public roads. The HSIP requires a data-driven, strategic approach to improving highway safety. HSIP projects must be consistent with the State's Strategic Highway Safety Plan (SHSP) and address a highway safety problem. The federal share for most HSIP activities is 90 percent of the total project cost. HSIP eligible activities can include the following:

- An intersection safety improvement.
- Pavement and shoulder widening to remedy an unsafe condition.

- Installation of rumble strips or another warning device.
- Installation of a skid-resistant surface at an intersection or other location with a high frequency of crashes.
- An improvement for pedestrian or bicyclist safety or safety of persons with disabilities to include traffic calming.
- Construction and improvement of a railway-highway grade crossing, including installation of protective devices.
- Installation, replacement, and other improvement of highway signage and pavement markings, or a project to maintain minimum levels of retro-reflectivity.
- Installation of a traffic control or other warning device at a location with high crash potential.

### **STBG Set-Aside (former Transportation Alternatives Program)**

The FAST Act eliminated the Transportation Alternatives Program (TAP) and replaced it with a set-aside from the STBG program. These set-aside funds include all projects and activities that were previously eligible under TAP, including pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to storm- water and habitat preservation. Eligible activities can include the following:

- Construction, planning, and design of on- and off-road trail facilities for walking, bicycling, and other non-motorized forms of transportation, as well as sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related

infrastructure, and projects to achieve compliance with the Americans with Disabilities Act of 1990 (ADA).

- Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities.
- Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other non-motorized transportation users.
- Community improvement activities, including the removal of outdoor advertising and vegetation management in transportation rights-of-way.

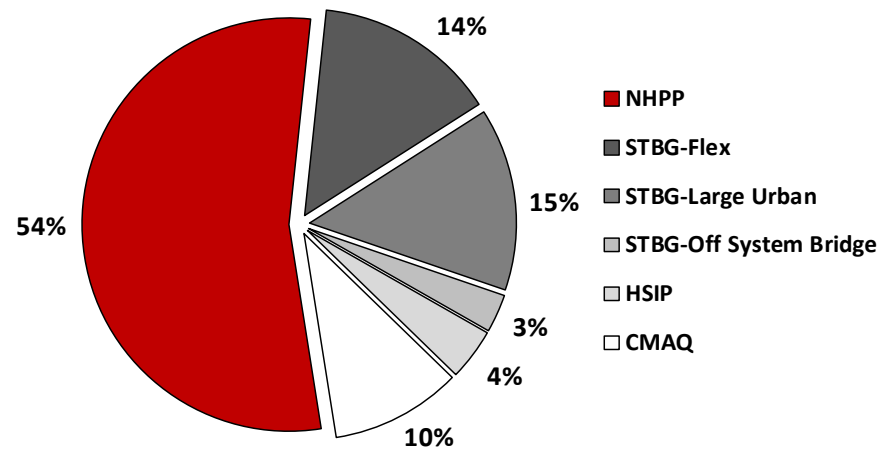
## Highway Funding Targets

### Regional Highway Funding Targets

The federal Highway Trust Fund, supplemented by some general funds, provides the majority of federal highway funding to states. Most federal funding is administered by the State, which allocates the funding to urban and rural areas. For the 2017-2021 TIP, NYSDOT estimated the amount of future federal highway authorizations and then established federal funding targets for each of its eleven Regions; targets for State Dedicated Funds (SDF) funds were also included. Each Region was then tasked with sub-allocating funding targets across their areas of responsibility. NYSDOT-Region 8 received its highway funding targets in October 2015; these targets identified the amount of available funds by year and program. NYSDOT-Region 8 then used a formula to sub-allocate highway funds across its seven counties<sup>1</sup>, which

includes four MPOs: PDCTC, OCTC, UCTC, and the New York Metropolitan Transportation Council (NYMTC); the latter through the Mid-Hudson South Transportation Coordination Committee (MHSTCC), which covers Putnam, Rockland, and Westchester counties. The Region 8 formula uses population and system data such as bridge conditions and lane mileage to calculate a fair share target for each county.

*Figure 6. NYSDOT-Region 8 Federal Planning Target Shares by Program (FFY 2017-2021)*



The Region 8 planning target totaled over \$920 million in federal and State highway funding over the five-year period from FFY 2017 through 2021. The total federal funding target was set at over \$689 million (almost 75 percent of total highway funding), with the National Highway Performance Program (NHPP) accounting for over half of the total and the Surface Transportation Block Grant (STBG) program accounting for most of the remaining portion (35 percent). Figure 6 shows the percent of funding for each FHWA program

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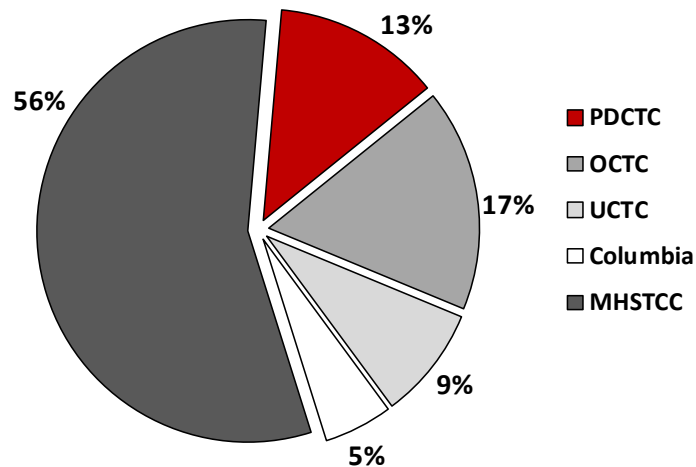
within Region 8. The State funding target was set at \$231 million (25 percent of total highway funding).

When distributed across the five years, the combined federal and State funding programs established an average annual highway funding target of approximately \$184 million for Region 8. Table 1 shows the Region's highway funding targets by year and program.

### Local Highway Funding Targets

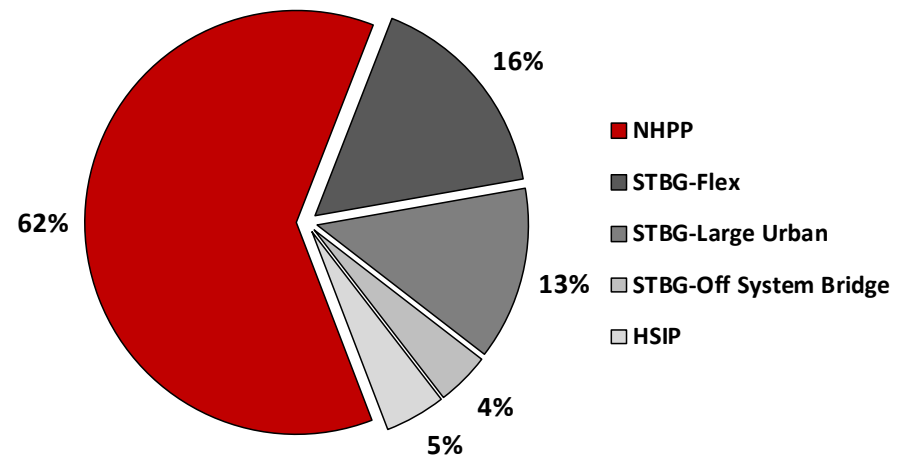
Upon receipt of the highway funding targets from the NYSDOT-Policy and Planning Division, Region 8 calculated targets based on a fairness formula to distribute funds across the four MPOs and Columbia County (see Figure 7).

Figure 7. Total FHWA Funding Target Shares by MPO/County (FFY 2017-2021)



NYSDOT-Region 8 provided each MPO with a highway funding target for their area, an estimate of available funds, and the impact of both federal and State funding constraints on existing project schedules. Table 2 shows the distribution of highway funding targets for each MPO/County by specific program, while Table 3 shows the distribution by year for the PDCTC.

Figure 8. FHWA Funding Target Shares by Program for the PDCTC (FFY 2017-2021)



For the 2017-2021 TIP, a total of \$121 million in federal and State highway funds have been targeted for Dutchess County. This represents 13 percent of Region 8's total federal highway target. Similar to the regional totals, approximately 73 percent (\$88.4 million) of this funding comes from federal sources, while 27 percent (\$32.7 million) comes from the State. Of all the federal highway programs, the NHPP provides the highest share of total federal highway funding for the PDCTC, representing 62 percent of the Transportation Council's total

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Table 1. NYSDOT-Region 8 Highway Funding Targets by Federal Fiscal Year (\$-millions)

	2017	2018	2019	2020	2021	Total
<b>Federal Funding Source</b>						
FHWA National Highway Performance Program (NHPP)	\$74.68	\$74.7	\$74.7	\$74.7	\$74.7	<b>\$373.4</b>
FHWA STBG Program-FLEX	\$19.68	\$19.7	\$19.7	\$19.7	\$19.7	<b>\$98.4</b>
FHWA STBG Program-Large Urban	\$19.7	\$19.7	\$19.7	\$19.7	\$19.7	<b>\$98.5</b>
FHWA STBG Program-Off System Bridges	\$4.12	\$4.1	\$4.1	\$4.1	\$4.1	<b>\$20.6</b>
FHWA Highway Safety Improvement Program	\$5.6	\$5.6	\$5.6	\$5.6	\$5.6	<b>\$27.8</b>
FHWA Congestion Mitigation & Air Quality (CMAQ)	\$14.1	\$14.1	\$14.1	\$14.1	\$14.1	<b>\$70.4</b>
<b>Total Federal Funds</b>	<b>\$137.8</b>	<b>\$137.8</b>	<b>\$137.8</b>	<b>\$137.8</b>	<b>\$137.8</b>	<b>\$689.1</b>
<b>State Dedicated Funds</b>	<b>\$46.3</b>	<b>\$46.3</b>	<b>\$46.3</b>	<b>\$46.3</b>	<b>\$46.3</b>	<b>\$231.3</b>
<b>Total Federal &amp; State Funding</b>	<b>\$184.1</b>	<b>\$184.1</b>	<b>\$184.1</b>	<b>\$184.1</b>	<b>\$184.1</b>	<b>\$920.5</b>

Table 2. NYSDOT-Region 8 Highway Funding Targets by MPO/County (FFY 2017-2021) (\$-millions)

	PDCTC	OCTC	UCTC	Columbia	MHSTCC <sup>1</sup>	Total
<b>Federal Funding Source</b>						
FHWA National Highway Performance Program (NHPP)	\$54.6	\$66.0	\$39.0	\$24.5	\$189.3	<b>\$373.4</b>
FHWA STBG Program-FLEX	\$14.4	\$17.4	\$10.3	\$6.5	\$49.8	<b>\$98.4</b>
FHWA STBG Program-Large Urban	\$11.7	\$9.9	\$1.5	\$0.0	\$75.4	<b>\$98.5</b>
FHWA STBG Program-Off System Bridges	\$3.6	\$3.9	\$5.9	\$3.5	\$3.7	<b>\$20.6</b>
FHWA Highway Safety Improvement Program	\$4.1	\$4.9	\$2.9	\$1.8	\$14.1	<b>\$27.8</b>
FHWA Congestion Mitigation & Air Quality (CMAQ)	\$0.0	\$15.1	\$0.0	\$0.0	\$55.3	<b>\$70.4</b>
<b>Total Federal Funds</b>	<b>\$88.4</b>	<b>\$117.2</b>	<b>\$59.6</b>	<b>\$36.3</b>	<b>\$387.6</b>	<b>\$689.1</b>
<b>State Dedicated Funds</b>	<b>\$32.7</b>	<b>\$40.8</b>	<b>\$21.6</b>	<b>\$13.9</b>	<b>\$122.3</b>	<b>\$231.3</b>
<b>Total Federal &amp; State Funding</b>	<b>\$121.1</b>	<b>\$158.0</b>	<b>\$81.2</b>	<b>\$50.2</b>	<b>\$509.9</b>	<b>\$920.5</b>

<sup>1</sup> Mid-Hudson South Transportation Coordination Committee includes Putnam, Rockland, and Westchester counties.

**FFY 2017-2021 Transportation Improvement Program (TIP)**

Table 3. PDCTC Highway Planning Targets by Federal Fiscal Year (FFY 2017-2021) (\$-millions)

	2017	2018	2019	2020	2021	Total
<b>Federal Funding Source</b>						
FHWA National Highway Performance Program (NHPP)	\$10.9	\$10.9	\$10.9	\$10.9	\$10.9	<b>\$54.6</b>
FHWA STBG Program-FLEX	\$2.9	\$2.9	\$2.9	\$2.9	\$2.9	<b>\$14.4</b>
FHWA STBG Program-Large Urban	\$2.3	\$2.3	\$2.3	\$2.3	\$2.3	<b>\$11.7</b>
FHWA STBG Program-Off System Bridges	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	<b>\$3.6</b>
FHWA Highway Safety Improvement Program	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	<b>\$4.1</b>
<b>Total Federal Funds</b>	<b>\$17.7</b>	<b>\$17.7</b>	<b>\$17.7</b>	<b>\$17.7</b>	<b>\$17.7</b>	<b>\$88.4</b>
<b>State Dedicated Funds</b>	<b>\$6.5</b>	<b>\$6.5</b>	<b>\$6.5</b>	<b>\$6.5</b>	<b>\$6.5</b>	<b>\$32.7</b>
<b>Total Federal &amp; State Funding</b>	<b>\$24.2</b>	<b>\$24.2</b>	<b>\$24.2</b>	<b>\$24.2</b>	<b>\$24.2</b>	<b>\$121.1</b>

Table 4. Poughkeepsie-Newburgh Urbanized Area Transit Funding Targets by Federal Fiscal Year (\$-millions)

	2017	2018	2019	2020	2021	Total
<b>Poughkeepsie-Newburgh Urbanized Area</b>						
FTA Section 5307/5340 (Urbanized Area) Program	\$21.2	\$21.2	\$21.2	\$21.2	\$21.2	<b>\$106.2</b>
FTA Section 5310 (Elderly & Disabled) Program	\$1.4	\$1.4	\$1.4	\$1.4	\$1.4	<b>\$7.2</b>
FTA Section 5337 (State of Good Repair) Program	\$5.1	\$5.1	\$5.1	\$5.1	\$5.1	<b>\$25.3</b>
FTA Section 5339 (Bus & Bus Facilities) Program	\$2.1	\$2.1	\$2.1	\$2.1	\$2.1	<b>\$10.3</b>
<b>Total Estimated Allocation</b>	<b>\$29.8</b>	<b>\$29.8</b>	<b>\$29.8</b>	<b>\$29.8</b>	<b>\$29.8</b>	<b>\$149.0</b>



allocation. Figure 8 shows the shares of federal highway funding targets by program for the Council.

The funding targets support both State and locally sponsored highway projects located in Dutchess County, as well as routine, multi-county maintenance projects that benefit more than just Dutchess County (e.g. bridge painting, guiderail replacement, and drainage projects). For the five-year program, these targets establish an average annual funding target of approximately \$24.2 million.

### **Transit Programs**

The FAST Act re-establishes a variety of funding programs that support transit operations, improve safety, and maintain a state of good repair. The FAST Act emphasizes the restoration of public transportation infrastructure by establishing a new needs-based formula program and new asset management requirements. In addition, it establishes performance-based planning requirements that align federal funding with key goals and tracks progress towards these goals. Finally, the FAST Act improves the efficiency of administering grant programs by consolidating several programs and streamlining capital investments. The various federal transit funding programs are outlined below.

#### FTA Section 5307 (Urbanized Area)/5340 (High Density and Growing States) Formula Programs

The largest of FTA's grant programs, these two programs provide grants to urbanized areas in support of public

transportation capital purchases and operations. Funding is distributed by a formula based on the level of transit service, population, and other factors. FTA Section 5307/5340 funds are not subject to the coordinated planning process requirement, nor do they require a competitive solicitation.

The FTA Section 5307/5340 program supports a wide variety of capital projects associated with providing public transit services in an urbanized area, whether by public bus operators, commuter rail operators, or private operators under contract with a public entity. Under the Section 5307/5340 program, the federal share is 80 percent for capital assistance. Eligible capital expenses include the following:

1. Replacement of buses and bus fleet expansions.
2. Purchase and installation of service and support equipment such as mobile radio units, bus stop signs, support vehicles, fare boxes, computers, and garage equipment.
3. Construction of maintenance facilities, intermodal terminals, bus shelters, and rail stations.
4. The introduction of new technology into public transportation, through innovative and improved products.
5. Capital support equipment, including computer hardware, software, bus diagnostic equipment, and other equipment that enhances operating efficiency.

Public transit operators may also use FTA Section 5307/5340 funding to offset costs incurred in operating their respective transit system (i.e. operating assistance). Under the Section

## **FFY 2017-2021 Transportation Improvement Program (TIP)**

5307/5340 program, the federal share for operating assistance is 50 percent. FTA Section 5307/5340 funds may also support transit planning activities and employee training.

### **FTA Section 5310 (Enhanced Mobility of Seniors and Individuals with Disabilities) Program**

This program provides formula funding to increase the mobility of seniors and persons with disabilities, primarily through the purchase of vehicles for use by non-profit human service agencies. Funds are apportioned based on each State's share of eligible populations and are apportioned to States for areas with fewer than 200,000 people and to TMAs for urbanized areas with more than 200,000 people. The former New Freedom program (FTA Section 5317), which provided grants for services for individuals with disabilities that went above and beyond the requirements of the Americans with Disabilities Act (ADA), is folded into this program. To be selected for funding, projects must be included in a locally developed coordinated public transit-human services transportation plan.

### **FTA Section 5337 (State of Good Repair) Program**

This program provides funding for the repair and upgrade of rail transit systems, along with high-intensity bus systems that use high-occupancy vehicle lanes, including bus rapid transit (BRT). Projects are limited to replacement and rehabilitation, or capital projects required to maintain public transportation systems in a state of good repair. Projects must be included in

a transit asset management plan to receive funding. The federal share for this program is 80 percent.

### **FTA Section 5339 (Bus and Bus Facilities) Program**

This formula grant program provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities. Each urbanized area is allocated funds based on their share of the national allocation. The federal share for this program is 80 percent.

## **Transit Funding Targets**

### **Regional Transit Funding Targets**

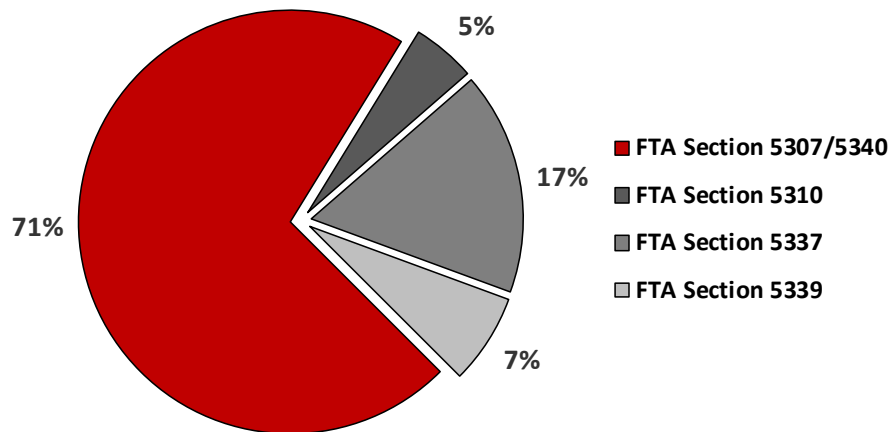
FTA funds are apportioned to the Poughkeepsie-Newburgh Urbanized Area as a whole, based on statistics reported by each designated recipient through the National Transit Database (NTD). The FTA apportionment does not directly allocate transit funding to designated recipients or transit operators; instead, this responsibility rests with the three MPOs of the Mid-Hudson Valley TMA, assisted by the NYSDOT-Public Transportation Bureau.

The NYSDOT-Public Transportation Bureau provided the Mid-Hudson Valley TMA with estimates of future transit funding targets in October 2015. The funding estimates included targets for four transit programs: the FTA Section 5307 (Urbanized Area) Program, FTA Section 5310 (Elderly & Disabled) Program, FTA Section 5337 (State of Good Repair) Program, and FTA Section 5339 (Bus & Bus Facilities) Program.

## FFY 2017-2021 Transportation Improvement Program (TIP)

The combined five-year target for all of these programs totals \$149 million for the TMA, or \$29.8 million annually. The Section 5307 program makes up the majority of this funding (71 percent). Table 4 shows regional transit funding estimates by program and fiscal year (see also Figure 9).

Figure 9. FTA Funding Target Shares by Program for the Mid-Hudson Valley TMA (FFY 2017-2021)



### Local Transit Funding Targets

Local transit funding targets were calculated by taking the regional TMA estimates and determining what amounts would likely be sub-allocated by the Transportation Council to its three designated recipients: Dutchess County Public Transit (DCPT) system, City of Poughkeepsie, and the Metropolitan Transportation Authority (MTA). The Transportation Council determined these amounts by reviewing past sub-allocations from 2013-2015 and calculating the average percentage of TMA-wide funding that was allocated to its three designated

recipients. This share or sub-allocation rate was then applied to the TMA funding targets for each program on an annual basis. For example, during the three-year period, Dutchess County Public Transit received 6.4 percent of the Section 5307 funding allocated to the TMA each year. This annual allocation rate was then applied to the \$21.2 million in 5307 funds expected to be available to the TMA, which produced an annual target of approximately \$1.4 million for Dutchess County Public Transit.

Based on these calculations, the Transportation Council estimates that a total of \$24.2 million in FTA Section 5307 and \$4.4 million in FTA Section 5339 will be available to the three transit operators in Dutchess County from FFY 2017-2021; approximately 60 percent of Section 5307 funds will support commuter rail service in Dutchess County, while the remaining 40 percent will support bus operations. In addition, the MTA is estimated to receive approximately \$25.3 million in Section 5337 funding, which is dedicated to maintaining fixed-guideway facilities. The Poughkeepsie-Newburgh Urbanized Area is also expected to receive a total of \$7.2 million in FTA Section 5310 funds over the five-year period (see Table 4). Table 5 shows the estimated sub-allocation of FTA Section 5307 funds to the three local designated recipients, while Table 6 shows the estimated sub-allocation of FTA Section 5339 funds.

### Programmed Funding

The 2017-2021 TIP directly programs almost \$86 million in federal transportation funding in Dutchess County, with \$32

**FFY 2017-2021 Transportation Improvement Program (TIP)***Table 5. FTA Section 5307/5340 Funding Estimates for Local Designated Recipients (\$-millions) (FFY 2017-2021)*

	2017	2018	2019	2020	2021	Total
<b>Designated Recipient Suballocation</b>						
Dutchess County <sup>1</sup>	\$1.4	\$1.4	\$1.4	\$1.4	\$1.4	<b>\$6.8</b>
City of Poughkeepsie <sup>1</sup>	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6	<b>\$2.9</b>
Metropolitan Transportation Authority (MTA) <sup>2</sup>	\$2.9	\$2.9	\$2.9	\$2.9	\$2.9	<b>\$14.5</b>
<b>Total Estimated Allocation</b>	<b>\$4.8</b>	<b>\$4.8</b>	<b>\$4.8</b>	<b>\$4.8</b>	<b>\$4.8</b>	<b>\$24.2</b>

<sup>1</sup> Dutchess County and City of Poughkeepsie suballocations subject to change based on ridership.

<sup>2</sup> MTA suballocation programmed for projects in TMA.

*Table 6. FTA Section 5339 Funding Estimates for Local Designated Recipients (\$-millions) (FFY 2017-2021)*

	2017	2018	2019	2020	2021	Total
<b>Designated Recipient Suballocation<sup>1</sup></b>						
Dutchess County	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	<b>\$3.8</b>
City of Poughkeepsie	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	<b>\$0.6</b>
<b>Total Estimated Allocation</b>	<b>\$0.9</b>	<b>\$0.9</b>	<b>\$0.9</b>	<b>\$0.9</b>	<b>\$0.9</b>	<b>\$4.4</b>

<sup>1</sup> Dutchess County and City of Poughkeepsie suballocations subject to change based on ridership.

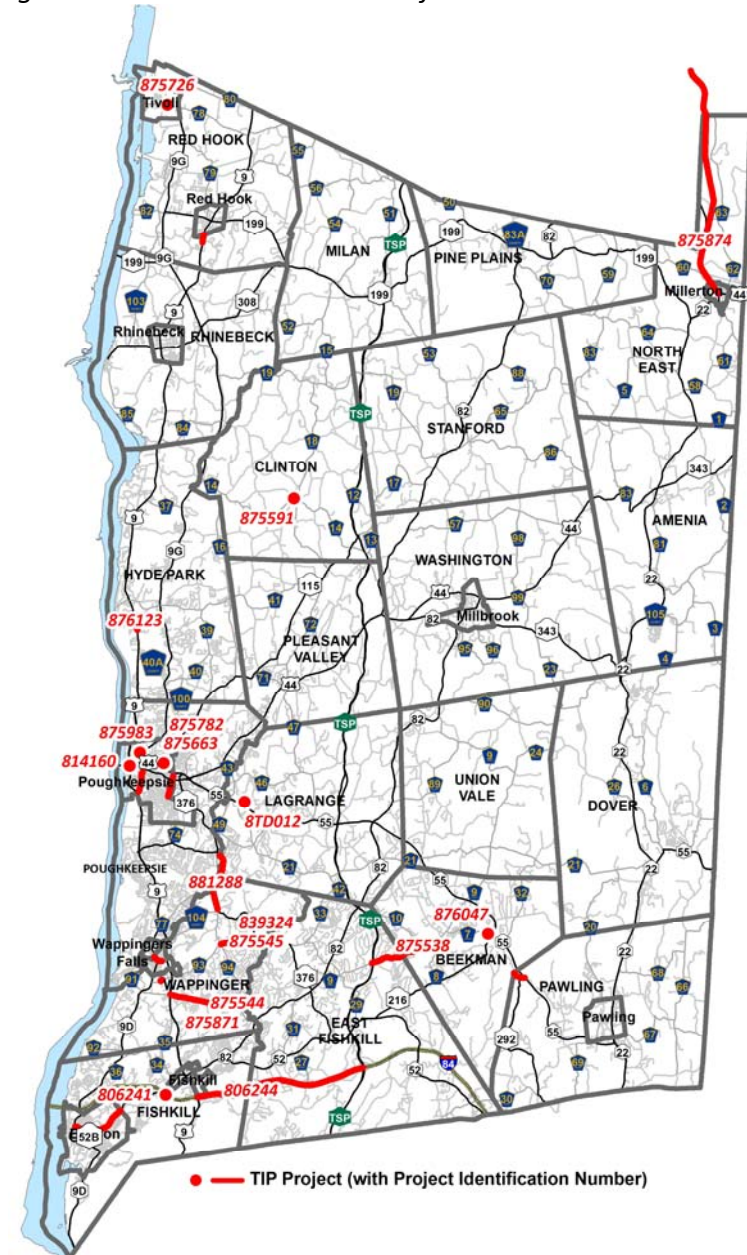
million for highway projects and \$53.8 million for transit projects. In addition to core programs, the 2017-2021 TIP also includes funding from other federal non-transportation agencies and direct congressional authorizations (e.g. earmarks), which are classified as discretionary federal-aid and High Priority Projects (HPP), the latter stem from earmarks approved in 2005. Table 7 shows the distribution of programmed highway and transit funding in Dutchess County by Federal Fiscal Year. Figure 10 shows the locations of TIP projects with phases scheduled between FFY 2017-2021.

In addition to projects located solely in Dutchess County, the 2017-2021 TIP includes multi-county projects that support routine maintenance across the seven counties in NYSDOT-Region 8. These projects include traffic signal replacements, highway sign improvements, guiderail maintenance, culvert replacements, and pavement marking initiatives that will partially benefit Dutchess County. The TIP also includes non-federally funded projects for two regional authorities: MTA/Metro-North Railroad and the NYS Bridge Authority. These are included for information purposes only and are not subject to Transportation Council approval.

#### Financial Constraint Analysis

The FAST Act requires that the TIP be financially constrained by using estimates of current and reasonably available revenues to program future projects. The financially constrained TIP must also demonstrate that the federally supported transportation system is being adequately operated and maintained. Financial constraint applies to each fiscal

Figure 10. FFY 2017-2021 TIP Projects





**FFY 2017-2021 Transportation Improvement Program (TIP)**

Table 7. Programmed Federal Transportation Funding in Dutchess County (\$-millions) (FFY 2017-2021)

<b>Federal Highway Administration (FHWA)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
FHWA National Highway Performance Program	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0	<b>\$1.3</b>
FHWA STBG Program-FLEX	\$4.4	\$8.2	\$0.2	\$0.3	\$0.0	<b>\$13.0</b>
FHWA STBG Program-Large Urban	\$0.1	\$0.0	\$6.3	\$1.8	\$0.0	<b>\$8.2</b>
FHWA STBG Program-Off System Bridges	\$0.0	\$0.0	\$0.0	\$0.6	\$0.0	<b>\$0.6</b>
FHWA Highway Safety Improvement Program	\$3.5	\$1.7	\$0.0	\$0.0	\$0.0	<b>\$5.2</b>
Discretionary Federal-aid <sup>1</sup>	\$2.6	\$0.8	\$0.4	\$0.0	\$0.0	<b>\$3.7</b>
<b>Total FHWA Funding</b>	<b>\$11.8</b>	<b>\$10.6</b>	<b>\$6.8</b>	<b>\$2.6</b>	<b>\$0.0</b>	<b>\$32.0</b>
<b>Federal Transit Administration (FTA)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Total</b>
FTA Section 5307/5340 (Urbanized Area) Program	\$6.6	\$3.6	\$2.8	\$4.1	\$4.9	<b>\$22.1</b>
FTA Section 5310 (Elderly & Disabled) Program	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	<b>\$1.6</b>
FTA Section 5337 (State of Good Repair) Program	\$5.1	\$5.1	\$5.1	\$5.1	\$5.1	<b>\$25.3</b>
FTA Section 5339 (Bus & Bus Facilities) Program	\$2.1	\$0.0	\$0.0	\$0.6	\$2.1	<b>\$4.9</b>
<b>Total FTA Funding</b>	<b>\$14.1</b>	<b>\$9.0</b>	<b>\$8.2</b>	<b>\$10.1</b>	<b>\$12.4</b>	<b>\$53.8</b>
<b>Total Federal Funding</b>	<b>\$25.9</b>	<b>\$19.6</b>	<b>\$15.0</b>	<b>\$12.8</b>	<b>\$12.5</b>	<b>\$85.8</b>

<sup>1</sup> Discretionary Federal-aid includes High Priority Projects and former Transportation Alternatives Program (TAP).

year, though exceptions are allowed if other federal funds are available to compensate for shortages in a program.

Since a significant amount of federal funding is used on multi-county, system-wide projects, the Transportation Council determined fiscal constraint for both NYSDOT-Region 8 and the PDCTC combined. Collectively, the four TIPs that make up Region 8's program (MHSTCC, OCTC, PDCTC, and UCTC), plus Columbia County, are not completely constrained, showing an overall shortfall of \$99 million in federal funding. For FHWA funding, shortfalls exist in the CMAQ, HSIP, NHPP, and STBG-Large Urban programs across Region 8; for FTA funding, shortfalls exist in the FTA Section 5307 and 5339 programs. Table 8 shows the federal funding targets for the five-year TIP period compared with the amounts programmed by the Transportation Council and NYSDOT-Region 8.

As required by NYSDOT guidance, the fiscal constraint analysis must specifically address the four-year STIP period (2017-2020). Across the seven county Region, there is a \$123 million shortfall in federal highway funding, which represents 17.8 percent of the entire program. The HSIP, NHPP, STBG-Large Urban, and CMAQ funding programs are over-programmed, with the latter showing a significant shortfall. However, this assumes that all projects and phases will be obligated (i.e. spent) in the year programmed. This is unrealistic given the complexities associated with completing federally funded projects, which is greatly affected by local experience with the federal-aid process. In acknowledgment of this situation, the FHWA has issued a national obligation goal of 75 percent for construction phases. Using this obligation rate, the

Transportation Council estimates that adequate federal funds will be available across Region 8 to carry out the STIP and TIP. Table 9 compares programmed funding by year and program for NYSDOT-Region 8.

Table 10 shows a similar comparison for the Transportation Council's program, showing programmed funding in relation to the planning targets for the STIP period. As a whole the PDCTC is under-programmed: primarily in the NHPP program, which is dedicated to the NYSDOT-controlled NHS system. Showing a balance of \$42.6 million for the STIP period, the Transportation Council's program is fiscally constrained; although there are minor shortfalls in the STP-Flex and HSIP programs, these are offset by balances in the other FHWA programs.

## **Environmental Mitigation**

Project sponsors address environmental impacts at the planning- and project-level through the implementation of NEPA and SEQRA regulations and the development of Context Sensitive Solutions (CSS), which ensure that projects are consistent with community objectives and preserve environmental, scenic, aesthetic, historic, and natural resource values of the area in which they are located.

Though environmental mitigation is normally incorporated into the design of a project or the selection of design alternatives, it can also take the form of a stand-alone project that is intended to offset or replace a certain environmental function(s) that was lost when a transportation project is

**FFY 2017-2021 Transportation Improvement Program (TIP)**

Table 8. Overall Fiscal Constraint (\$-millions) (FFY 2017-2021) <sup>1</sup>

	Funding Targets (FFY 2017-2021)			Total Programmed (FFY 2017-2021)			Balance
	PDCTC	NYSDOT <sup>2</sup>	Total	PDCTC	NYSDOT <sup>2</sup>	Total	
<b>Federal Highway Administration (FHWA)</b>							
FHWA National Highway Performance Program	\$54.6	\$318.8	\$373.4	\$1.3	\$403.8	\$405.1	-\$31.7
FHWA STBG Program-FLEX	\$14.4	\$84.0	\$98.4	\$13.0	\$84.6	\$97.6	\$0.8
FHWA STBG Program-Large Urban	\$11.7	\$86.8	\$98.5	\$8.2	\$105.0	\$113.2	-\$14.6
FHWA STBG Program-Off System Bridges	\$3.6	\$17.0	\$20.6	\$0.6	\$13.6	\$14.2	\$6.4
FHWA Highway Safety Improvement Program	\$4.1	\$23.7	\$27.8	\$5.2	\$26.5	\$31.7	-\$3.9
FHWA Congestion Mitigation & Air Quality (CMAQ)	\$0.0	\$70.4	\$70.4	\$0.0	\$150.4	\$150.4	-\$80.0
Total	\$88.4	\$600.8	\$689.2	\$28.3	\$784.0	\$812.2	-\$123.0
<b>Federal Transit Administration (FTA)</b>	<b>PDCTC</b>	<b>MHVTMA<sup>3</sup></b>	<b>Total</b>	<b>PDCTC</b>	<b>MHVTMA<sup>3</sup></b>	<b>Total</b>	<b>Balance</b>
FTA Section 5307/5340 (Urbanized Area) Program	\$24.2	\$82.0	\$106.2	\$22.1	\$91.9	\$114.0	-\$7.9
FTA Section 5310 (Elderly & Disabled) Program	\$1.6	\$7.2	\$8.8	\$1.6	\$0.6	\$2.2	\$6.6
FTA Section 5337 (State of Good Repair) Program	\$25.3	\$25.3	\$50.6	\$25.3	\$0.0	\$25.3	\$25.3
FTA Section 5339 (Bus & Bus Facilities) Program	\$4.4	\$5.9	\$10.3	\$4.9	\$5.6	\$10.4	-\$0.2
Total	\$55.5	\$120.4	\$175.9	\$53.8	\$98.1	\$152.0	\$23.9
<b>Total Federal Funding</b>	<b>\$143.9</b>	<b>\$721.2</b>	<b>\$865.1</b>	<b>\$82.1</b>	<b>\$882.1</b>	<b>\$964.2</b>	<b>-\$99.1</b>

<sup>1</sup> Only includes fiscally constrained programs.

<sup>2</sup> Includes NYSDOT-Region 8 sponsored multi-county projects located in Dutchess County.

<sup>3</sup> FTA funds shown for the Poughkeepsie-Newburgh Urbanized Area (UZA89). Programmed funds include pre-FFY 2016 FTA allocations that do not count against FFY 2017-2021 funding targets.

# FFY 2017-2021 Transportation Improvement Program (TIP)

Table 9. NYSDOT-Region 8 Fiscal Constraint for FHWA Programs (\$-millions) (FFY 2017-2020 STIP)

FHWA Programs	2017			2018			2019			2020			Total		
	Target	Programmed	Balance	Target	Programmed	Balance	Target	Programmed	Balance	Target	Programmed	Balance	Target	Programmed	Balance
FHWA National Highway Performance Program	\$74.7	\$123.2	-\$48.5	\$74.7	\$77.6	-\$2.9	\$74.7	\$72.2	\$2.4	\$74.7	\$68.9	\$5.8	\$298.7	\$342.0	-\$43.2
FHWA STBG Program-FLEX	\$19.7	\$20.7	-\$1.1	\$19.7	\$26.9	-\$7.3	\$19.7	\$20.1	-\$0.4	\$19.7	\$19.8	-\$0.1	\$78.7	\$87.5	-\$8.8
FHWA STBG Program-Large Urban	\$19.7	\$26.9	-\$7.2	\$19.7	\$18.2	\$1.5	\$19.7	\$27.0	-\$7.3	\$19.7	\$19.1	\$0.6	\$78.8	\$91.3	-\$12.4
FHWA STBG Program-Off System Bridges	\$4.1	\$4.6	-\$0.5	\$4.1	\$0.9	\$3.2	\$4.1	\$3.9	\$0.2	\$4.1	\$3.7	\$0.4	\$16.5	\$13.2	\$3.3
FHWA Highway Safety Improvement Program	\$5.6	\$17.5	-\$11.9	\$5.6	\$5.2	\$0.4	\$5.6	\$2.9	\$2.7	\$5.6	\$3.2	\$2.3	\$22.3	\$28.8	-\$6.6
FHWA Congestion Mitigation & Air Quality (CMAQ)	\$14.1	\$46.2	-\$32.1	\$14.1	\$22.0	-\$7.9	\$14.1	\$40.9	-\$26.9	\$14.1	\$14.3	-\$0.2	\$56.3	\$123.4	-\$67.0
<b>Total FHWA Funding</b>	\$137.8	\$239.1	-\$101.2	\$137.8	\$150.9	-\$13.1	\$137.8	\$167.1	-\$29.3	\$137.8	\$129.1	\$8.8	\$551.4	\$686.2	-\$134.8

Table 10. PDCTC Fiscal Constraint for FHWA Programs (\$-millions) (FFY 2017-2020 STIP)

FHWA Programs	2017			2018			2019			2020			Total		
	Target	Programmed	Balance	Target	Programmed	Balance	Target	Programmed	Balance	Target	Programmed	Balance	Target	Programmed	Balance
FHWA National Highway Performance Program <sup>1</sup>	\$10.9	\$1.3	\$9.7	\$10.9	\$0.0	\$10.9	\$10.9	\$0.0	\$10.9	\$10.9	\$0.0	\$10.9	\$43.7	\$1.3	\$42.4
FHWA STBG Program-FLEX	\$2.9	\$4.4	-\$1.5	\$2.9	\$8.2	-\$5.3	\$2.9	\$0.2	\$2.7	\$2.9	\$0.3	\$2.6	\$11.5	\$13.0	-\$1.5
FHWA STBG Program-Large Urban	\$2.3	\$0.1	\$2.3	\$2.3	\$0.0	\$2.3	\$2.3	\$6.3	-\$4.0	\$2.3	\$1.8	\$0.6	\$9.4	\$8.1	\$1.2
FHWA STBG Program-Off System Bridges	\$0.7	\$0.0	\$0.7	\$0.7	\$0.0	\$0.7	\$0.7	\$0.0	\$0.7	\$0.7	\$0.6	\$0.2	\$2.9	\$0.6	\$2.3
FHWA Highway Safety Improvement Program	\$0.8	\$3.5	-\$2.7	\$0.8	\$1.7	-\$0.9	\$0.8	\$0.0	\$0.8	\$0.8	\$0.0	\$0.8	\$3.3	\$5.2	-\$2.0
<b>Total FHWA Funding</b>	\$17.7	\$9.3	\$8.4	\$17.7	\$9.9	\$7.8	\$17.7	\$6.5	\$11.2	\$17.7	\$2.6	\$15.1	\$70.7	\$28.2	\$42.5

<sup>1</sup> Note: the majority of NHPP funds are programmed for multi-county, regional maintenance projects sponsored by NYSDOT-Region 8, which makes it difficult to determine the amount programmed to the PDCTC.

constructed. Examples include storm water management facilities, wetland replacement projects, stream restoration projects, reforestation projects, construction of sound walls, replacement of parklands, and wildlife crossing structures. Environmental mitigation measures can be funded with federal, state, and local monies. From the federal standpoint, such activities can be part of a project's construction cost (normal federal-aid monies) or can be supported with FHWA funding for stand-alone projects.

## **Energy Analysis**

Though the TIP is primarily a capital program of transportation projects, it must also address the impacts that projects will have on air quality and the local environment. Energy use in transportation is a combination of distance traveled (e.g. vehicle miles traveled) and fuel efficiency (e.g. miles per gallon). Reducing the amount of energy used for transportation can be accomplished by reducing miles traveled, increasing the number of people in a vehicle, increasing the fuel efficiency of vehicles, and reducing delay created by congestion.

The NYS Energy Plan examines a number of different actions that could reduce total fuel consumption and/or increase use of renewable or alternative energy sources. Actions that hold some promise for Dutchess County include:

1. Infrastructure maintenance.
2. Maintenance of local transit services.
3. New bicycling and walking facilities.

4. Alternative fuels for local transit vehicles.
5. Intelligent Transportation Systems (ITS) projects – signal improvements, travel information services or facilities.
6. Transportation Demand Management (TDM) activities – carpool programs, park and ride facilities, and inter-county bus and ferry services.

These activities are included among the goals and recommended projects in *Moving Dutchess 2* and the 2017-2021 TIP, and will assist Dutchess County and the State in achieving the goals of the NYS Energy Plan.

## **Title VI & Environmental Justice**

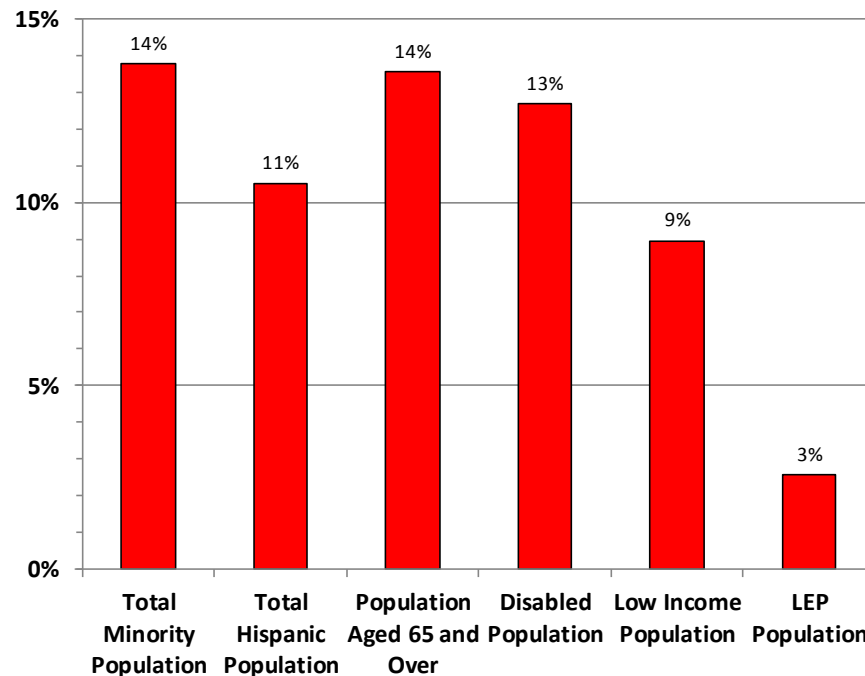
As a recipient of federal funding, the Transportation Council must demonstrate its compliance with Title VI of the Civil Rights Act of 1964 and the Environmental Justice provisions set forth in Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed in 1994. Title VI prohibits discrimination by recipients of federal financial assistance, including federal transportation funds, on the basis of race, color, and national origin, or matters related to language access for Limited English Proficient (LEP)<sup>2</sup> persons; Environmental Justice builds upon this by adding low income populations to the groups that should be protected from the adverse impacts of federally funded actions.<sup>3</sup> The Transportation Council assures that no person conducting business with it will be excluded from participating in, be denied the benefits of, or otherwise be subjected to discrimination on the grounds of race, color, national origin, sex, disability, age, language, or income.



## FFY 2017-2021 Transportation Improvement Program (TIP)

Identifying the locations of minority, low income, and LEP populations is an important step in complying with Title VI and Environmental Justice requirements. The Transportation Council relied on guidance from the FTA to identify these populations.<sup>4</sup> For the Title VI and Environmental Justice analysis, the Transportation Council used 2010 Census data to identify block groups that were above-average for total minority and Hispanic populations, and the Census Bureau's 2010-2014 American Community Survey (ACS) 5-year Estimate to identify municipalities with above average low-income and LEP populations. Figure 11 shows Title VI and Environmental Justice populations as a percent of total county population.

*Figure 11. Title VI & Environmental Justice Populations as a Percentage of Total County Population (2010)*



population by summing the Black/African-American, Asian, American Indian/Alaskan Native, and Native Hawaiian/Pacific Islander populations. In 2010 the county had a total minority population of 40,956 people, which was 13.8 percent of the county's total population. Using this average, 66 of 248 block groups were identified as being above-average for minority population. The cities of Beacon and Poughkeepsie, towns of Hyde Park, Fishkill, Poughkeepsie, and Wappinger, and Villages of Fishkill and Wappingers Falls contained block groups that were above average for total minority population. Figure 12 shows the 2010 Census block groups that had an above-average percentage of minorities.

### Hispanic Population

The Transportation Council calculated total Hispanic population by analyzing the Hispanic non-white population. In 2010 the county had a total Hispanic population of 31,267 people, which was 10.5 percent of the county's total population. Using this average, 79 of 248 block groups were identified as being above-average for Hispanic population. The cities of Beacon and Poughkeepsie, towns of Amenia, Beekman, Dover, Hyde Park, Fishkill, Pawling, Poughkeepsie, and Wappinger, and villages of Fishkill, Millerton, Pawling, and Wappingers Falls contained block groups that were above average for total Hispanic population. Figure 13 shows 2010 Census Block Groups that had an above-average percentage of Hispanics.

Figure 12. Census Block Groups Above-Average for Total Minority Population (2010 Census)

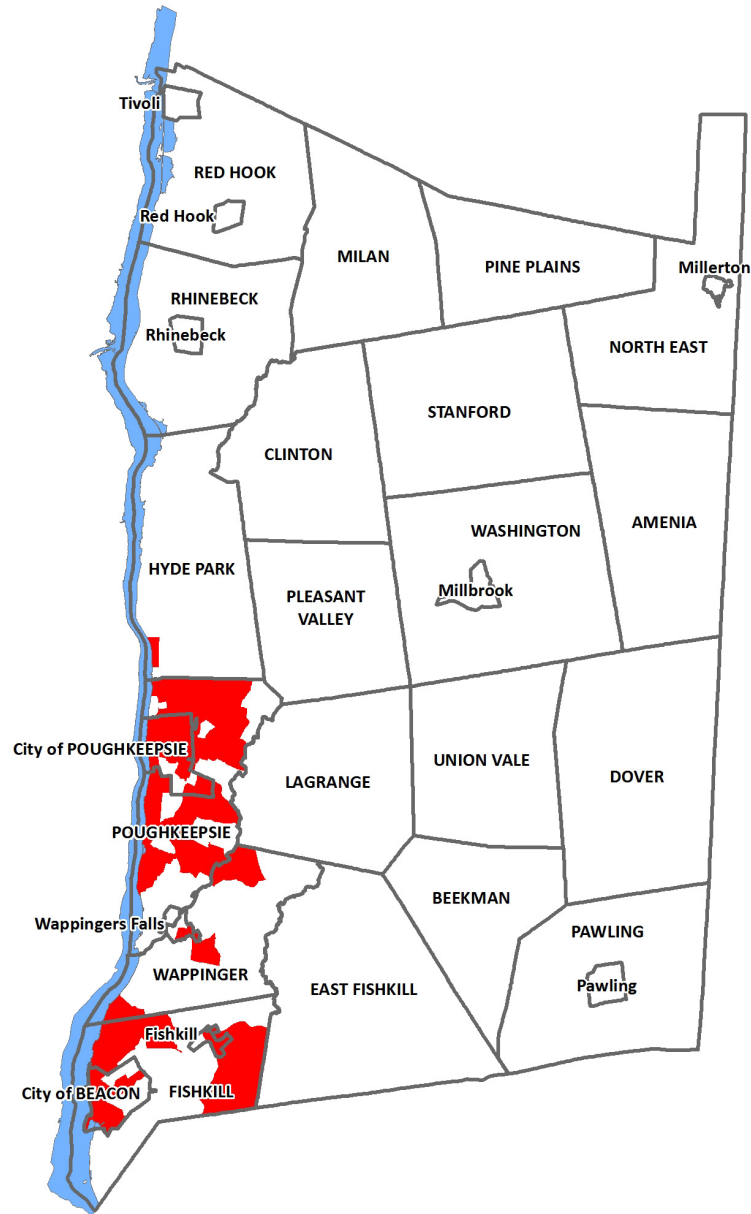


Figure 13. Census Block Groups Above-Average for Total Hispanic Population (2010 Census)

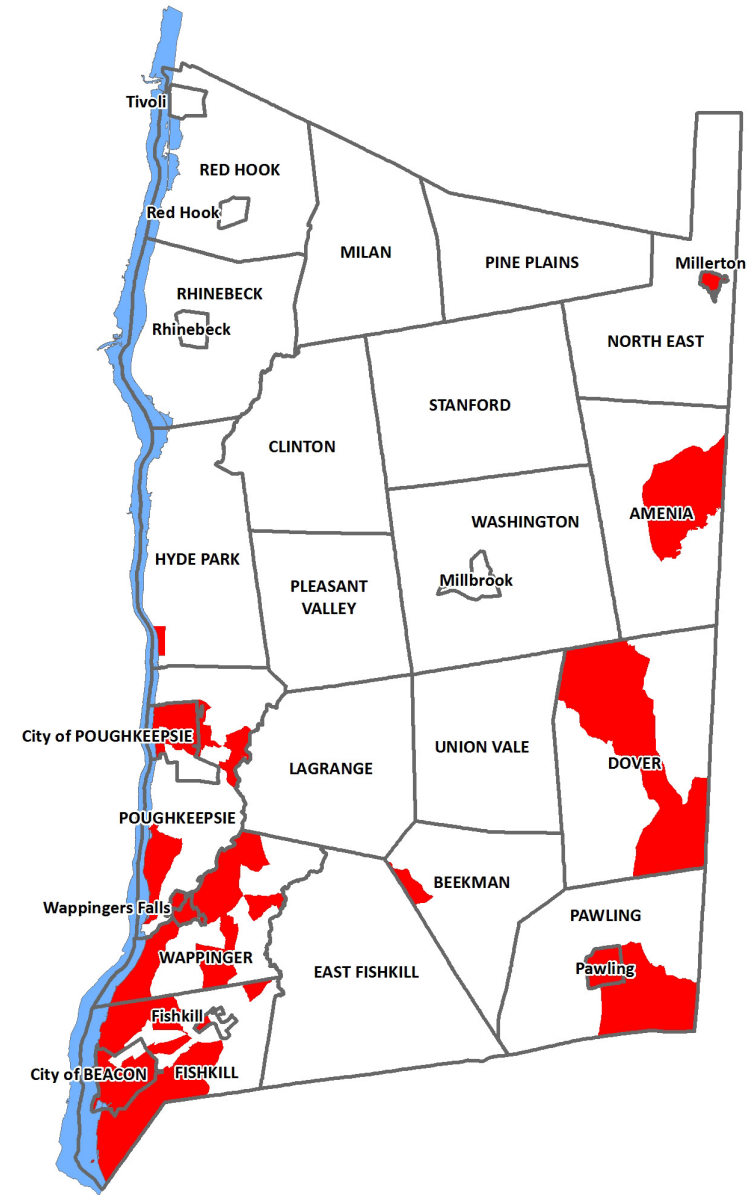
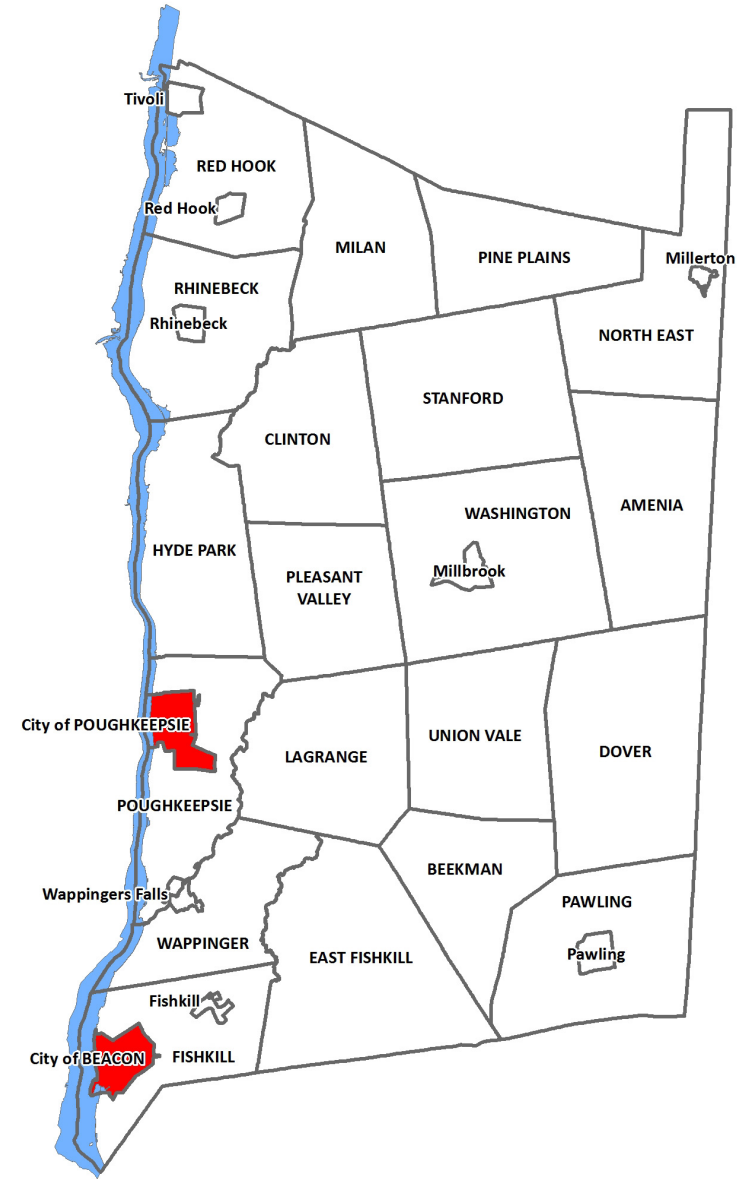


Figure 14. Municipalities Above-Average for Low Income Population (U.S. Census 2010-2014 ACS 5-year Estimate)



Figure 15. Municipalities Above-Average for Limited English Proficiency (LEP) Households (U.S. Census 2010-2014 ACS 5-year Estimate)



### **Low-Income Population**

The Transportation Council identified low-income population areas using the estimated percent of the population living below poverty at the municipal level. Based on the Census Bureau's 2010-2014 ACS 5-year Estimates, 22,800 to 26,800 individuals in Dutchess County were living below the poverty level (approximately 8.1-9.5 percent of total population). These ranges represent the lower and upper bounds based on the reported margins of error for each estimate. Regardless, these numbers are higher than those reported in the 2000 Census, which found that 19,900 or 7.5 percent of the county's population was living in poverty.

For the Title VI and Environmental Justice analysis, the Transportation Council identified municipalities that had above average percentages of low income populations, defined as the percent of individuals below the poverty level, compared to the county average. The percentages were calculated as ranges (lower and upper bounds) that incorporated the reported margins of error for each municipality. Municipalities that had a lower bound above 9.5 percent were classified as being above-average for low-income population. The Council identified the City of Poughkeepsie (at 20.6-26.6 percent) as the only municipality that was above average for low income population, and it stands out as well above the county average. Figure 14 shows municipalities that are above average for low income population.

### **Limited English Proficiency (LEP) Population**

The Transportation Council identified Limited English Proficiency (LEP) populations using the estimated number of LEP households in each municipality. Based on the Census Bureau's 2010-2014 ACS 5-year Estimates, 2.9 to 3.5 percent of the county's households were limited English speaking; this range represents the lower and upper bounds based on the estimate's margin of error (+/- 0.3 percent). Similar ranges were calculated at the municipal level based on the margins of error for each municipality. Those municipalities with a lower-bound above 3.5 percent were classified as being above-average for LEP households. Using this methodology, the cities of Beacon and Poughkeepsie had above-average percentages of LEP households. Figure 15 shows municipalities that are above average for LEP households.

#### Title VI & Environmental Justice Analysis

In order to assess the distribution of transportation investments across Dutchess County, projects programmed in the 2017-2021 TIP were overlaid against the map of minority and low income populations. Only those projects with a specific geographic location were mapped, with the majority being local highway projects. Few transit projects were mapped, since many of these involve vehicle purchases or preventive maintenance activities; system-wide highway maintenance projects such as lane striping and repaving were also not included, because they do not have a specific location. Although not comprehensive, the analysis does show the relation of those highway projects with a known location

to areas with above-average minority, Hispanic, low income, and LEP populations.

The analysis showed that over 87 percent of total funding for location-specific highway projects was located within the Transportation Council's Adjusted Urbanized Area Boundary. The analysis further indicated that 29.6 percent of mapped investment was located within block groups above average for total minority population, while over 30.6 percent was located in block groups above average for total Hispanic population. These shares are higher than each population's share of the county's total population. Similarly, 16.2 percent of mapped investment was located in areas above average for low income populations, and 44.8 percent located in areas with above average LEP populations.

The Transportation Council acknowledges that not all projects may benefit local populations and may even worsen an area's quality of life. For example, a reconstructed intersection may reduce vehicle congestion and increase traffic speeds, but it might also impede walking and bicycling if certain design features (e.g. crosswalks, pedestrian countdown timers, adequate shoulders, etc.) are not built into the project. However, quantifying such effects is difficult since many of the programmed projects have not been designed yet. The Transportation Council therefore works with project sponsors to evaluate quality of life impacts on a project-by-project basis, mindful of how a project will impact sensitive populations identified through this and future analyses. One example of this is the use of the Complete Streets Checklist that was developed by the Transportation Council in

conjunction with the county's Complete Streets Committee. This checklist is intended to assist county agencies in assessing the applicability of Complete Streets elements when designing new projects or reviewing projects from external agencies or applicants.

### **Congestion Management Plan (CMP)**

The Transportation Council, in conjunction with the OCTC and UCTC, adopted a joint CMP effective October 1, 2005. The CMP established a four step process to measure and define recurring congestion in the three counties. In accordance with the CMP, the three MPOs completed a joint progress report in June 2006 which identified the locations of moderate, heavy, and severe congestion in the region.

In 2012 the TMA further refined the CMP by completing a Travel Time Survey that gathered travel time data on major corridors in the three-county area. Using GPS, the survey measured the time it took to travel various road segments during five time periods: weekday morning, mid-day, and evening peak periods, and Saturday and Sunday peak periods. The data was used to calculate a Travel Time Index (TTI), defined as the ratio of the time it takes to travel a segment during the peak period to the time it takes to travel at free flow (traveling at the speed limit). A TTI above 1.30 was considered congested.

The 2017-2021 TIP includes four projects located on or near locations that have a TTI above 1.30 (i.e. congested):



1. PIN 806244: I-84 Intelligent Transportation System (ITS) improvements from Route 9D to the Taconic State Parkway (Towns of East Fishkill and Fishkill).
2. PIN 814160: Route 9/44/55 interchange scoping study (City of Poughkeepsie).
3. PIN 839324: Route 376 at Lake Walton Rd./Robinson Ln. intersection (Town of East Fishkill).
4. PIN 881288: Route 376 special surface treatment from Hackensack Heights Rd. to Red Oaks Mill Rd. (Towns of LaGrange and Wappinger).

## **Public Involvement**

The Transportation Council provides citizens, private organizations, and public agencies with the opportunity to participate and comment on its products, including the 2017-2021 TIP. These opportunities range from participating at Council and Planning Committee meetings, submitting written comments, or communicating directly with Transportation Council staff. All Council meetings are open to the public and have time reserved for public participation.

As required by its Public Participation Plan, the Transportation Council held a 30-day public comment period for the Draft 2017-2021 TIP. The formal public comment period began on May 26, 2016 and ended on June 24, 2016. A public meeting was held on June 8, 2016, with a public announcement distributed to the Transportation Council's public information list. The Draft TIP was also posted on the Transportation Council website at: [www.dutchessny.gov/pdctc.htm](http://www.dutchessny.gov/pdctc.htm).

## **Transportation Council Adoption**

The Transportation Council approved the 2017-2021 TIP on June 30, 2016. It was then transmitted to NYSDOT for inclusion in the Draft STIP, which also includes the TIPs from the thirteen other New York State MPOs and the capital programs for the State's rural counties. NYSDOT will then submit the STIP to FHWA and FTA for their review. The TIP update will be complete upon FHWA and FTA approval.

## **Future Revisions**

The 2017-2021 TIP will need to be revised based on changing priorities, project schedules, and costs. Revisions to the TIP are classified as either Amendments or Administrative Modifications. Each has a different approval process based on criteria adopted by the Transportation Council.

### Amendment

An Amendment is a revision that involves a major change to a project, including the addition or deletion of a project or a major change in design concept or scope, cost, or the project/project phase initiation date. Examples of an amendment action include:

- Addition or removal of a transportation project funded by the FHWA or FTA.
- Addition of a Construction or Construction Inspection phase to an existing FHWA project.

## ***FFY 2017-2021 Transportation Improvement Program (TIP)***

- Funding increase or decrease of more than 25 percent of the total federal share for a FHWA or FTA funded project.
- Change from non-federal to FHWA or FTA fund source, regardless of amount.
- Deferring an existing FHWA or FTA funded project or project phase beyond the four-year STIP period.
- Promoting a FHWA or FTA funded project or project phase from the post-STIP period into the four-year STIP.

Amendments require public review and comment (15 days) and Transportation Council approval.

### **Administrative Modification**

An Administrative Modification is a revision that includes minor changes to project or project phase costs, funding sources for previously-approved projects, or phase initiation dates. An administrative modification does not require public review or Transportation Council approval. Administrative Modifications are usually requested by the project sponsor to the Local Projects Unit of NYSDOT-Region 8, which then notifies the Transportation Council of the action. NYSDOT or another transportation agency may also inform the Council of changes in the scope, cost, or schedule of non-federally funded projects, which are listed on the TIP for information purposes only.

To keep the TIP financially constrained as an Amendment or Administrative Modification is processed, a project sponsor must identify an offset from another project to make up for the requested cost increase or schedule change. The search

for an offset begins with the sponsoring agency; if no offset is available from the sponsor's projects, offsets are explored from other sponsors, and if necessary, from the Region or State.

### **Annual Listing of Obligated Projects**

To track the progress of projects, the Council publishes an [Annual Listing of Obligated Projects](#) ("Obligation Report") that lists TIP projects for which federal funds were obligated in the preceding year. Obligation refers to the process whereby federal funds are authorized and committed by New York State or a designated recipient, and authorized by the FHWA or awarded as a grant by the FTA. The Obligation Report includes the following information for each project or project phase:

- Project description (i.e. type of work, length, location, etc.)
- Estimated total project cost.
- Project sponsor.
- Amount of federal funds requested in the TIP.
- Amount of federal funding that was obligated during the preceding year.
- Amount of federal funding remaining and available for subsequent years.

The Transportation Council will complete an Obligation Report no later than 90-days following the end of each Federal Fiscal Year (September 30<sup>th</sup>) and make it available on the PDCTC website.

## Summary

States and local governments across the nation face the challenge of balancing the repair of aging infrastructure and construction of improvements to meet future needs. Such improvements take time and funding, both of which can be in short supply. The 2017-2021 TIP provides a strategy to meet the minimum transportation needs of Dutchess County, by carefully balancing sponsor priorities with estimates of available funding. The Transportation Council will modify the TIP on a project-by-project basis through amendments and administrative modifications as necessary.

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<sup>1</sup> NYSDOT-Region 8 includes Columbia, Dutchess, Orange, Putnam, Rockland, Ulster, and Westchester counties.

<sup>2</sup> As per FTA C 4702.1B, Limited English Proficient (LEP) persons refers to persons for whom English is not their primary language and who have a limited ability to read, write, speak, or understand English. It includes people who reported to the U.S. Census that they speak English less than very well, not well, or not at all.

<sup>3</sup>As per FTA C 4702.1B, low-income person means a person whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines.

<sup>4</sup> FTA C 4702.1B dated October 1, 2012 and FTA C 4703.1 dated August 15, 2012.